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Source: *Journal of the American Oriental Society*, Vol. 92, No. 2 (Apr. - Jun., 1972), pp. 222-229

Published by: [American Oriental Society](#)

Stable URL: <http://www.jstor.org/stable/600649>

Accessed: 13/12/2010 16:07

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TRADE MECHANISMS IN INDUS-MESOPOTAMIAN INTERRELATIONS¹

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TRADE MAY BE UNDERSTOOD in its widest sense as the reciprocal traffic of materials or goods directed by human agency from one place and/or individual to another. Polyani (1957:159) divides the mechanics of trade into four major constituents which provide a suitable framework within which to examine trade: two-sidedness, goods, personnel and carrying. Our emphasis will be upon the first three. Our information on the last for the time period involved, save for the presence of sea-faring, is virtually *nil*. Additionally at least three different processes in long distance trade can be profitably distinguished.

1. *Direct Contact Trade*: face to face contact is established between two different places for the purposes of trade. Goods are traded between places A and B without direct assistance by or relations with intermediary sites. This may include the actual presence of trading colonies established by peoples of place A at site B for the trade of specific materials of standardized value. This type of trade is usually centrally organized and administered by one of the principals involved.

2. *Exchange*: this form in the dissemination of goods differs from the above by lacking a definite organization or standardized value of specific materials. Goods are passed from place to place without specific design or purpose. Thus materials from site A and their arrival at site B represent an arbitrary exchange of merchandise from site to site. It is often difficult to isolate whether an object was brought into a site through exchange or independently produced through stimulus diffusion of a style or functional tool type.

3. *Central Place Trade*: is evident when goods are either produced, or resources present, at a few necessarily central points. Thus site C may be located beyond the spheres of influence of sites A and B and control the means of production and/or resources which are desired by sites A and B. Site C, acting as a Central Place, may then either transship materials produced in

other centers or export its own materials or resources. Alternatively, the resources and/or transshipment of goods may be under the control and direction of peoples from either site A or B residing among the foreigners of site C. In this respect there is Direct Contact Trade between the Central Place (site C) and either A and/or B. The important factor is that the Central Place (C) is of a different culture than either A or B. It becomes immediately apparent that the archaeologist must attempt to distinguish whether peoples from sites A or B are physically present, i.e., in the form of a trading colony at the Central Place or whether material remains of A or B are present at C as a result of trade.

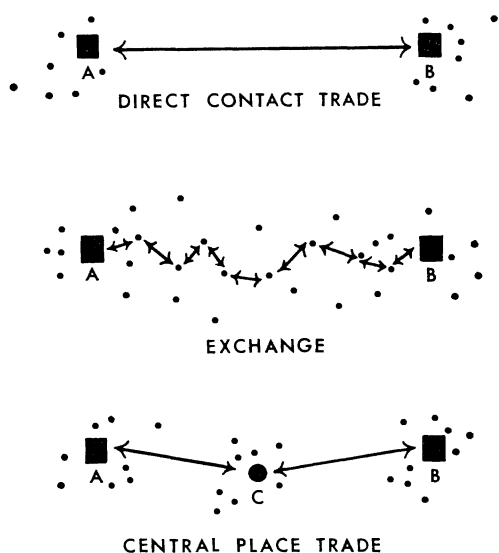
Insufficient emphasis has been placed on the economic development of trade in what may have been independent systems or mechanisms. Three such systems are described above and diagrammed in Chart I. They appear most profitable as isolated mechanisms in discussing Indus-Mesopotamian relations. It must be recognized, however, that these are not mutually exclusive systems—all three types may be coexistent. The task of the archaeologist is to distinguish which process is involved in any trade mechanism at a given point in time. Because of the high cost of transportation, long distance trade is mainly restricted to materials and goods which are of great value or produced and/or available in limited areas. The role that trade may have had in generative processes leading *toward* urbanization is unknown. It is unreasonable to dismiss long distance trade on *a priori* grounds as derivative from the growth of urban civilization rather than having perhaps helped bring the latter into existence.

Until recently archaeologists have argued for the predominance of *Direct Contact Trade* between the Indus and Mesopotamia, either by sea (Oppenheim 1954) or by land (Mallowan 1965).

DIRECT CONTACT TRADE

Direct contact between traders or colonies within the Indus and Mesopotamia cannot be supported or negated by the archaeological evidence. Clearly a handful of seals (Gadd 1932; Wheeler 1968), etched carnelian beads (Wheeler 1968; Dikshit 1949), terracotta statues and dice (Dales 1968) in Mesopotamia cannot be used

¹ This paper was substantially revised since its presentation in the University of Pennsylvania colloquia on Ancient Trade, Dept. of Ancient History. It has benefited from the comments of Professors James Muhly, Åke Sjöberg, George Dales, Robert H. Dyson, Jr., J. R. Caldwell and J. Sabloff.



as concrete evidence to support the presence of Indus traders in Mesopotamia. Conversely, the presence of perforated, knobbed and 'reserve slip' ware (Delougaz 1952), spiral and animal headed pins (Piggott 1948) or segmented beads (Wheeler 1968) cannot support the evidence of Mesopotamia in the Indus.

Direct Contact Trade through the presence of Assyrian trading colonies at the Anatolian sites of Hattush (Bittel 1970) and Kultepe (Ozguc 1962) have been concrete examples derived from excavations of this type of trade. At both sites the excavators argued for distinctive activity areas inhabited by foreign trading colonists, set apart from the living quarters of the indigenous inhabitants. It is instructive to see the evidence which suggested this situation to the excavators. The intrusive nature of the colonists was not obtained by identifying the distinctive nature of their architecture or ceramics, which were similar to those of the indigenous inhabitants. At both the karum of Kultepe and Hattush the presence of the colonies were indicated by the presence of cylinder seal impressions and textual data. Thus at Kultepe the excavator admits, "If the tablets and their sealed envelopes had not been found, in fact, we might never have suspected the existence of a merchant colony." (Ozguc 1962). At Hattush of sixty-three Old Assyrian documents, sixty were found in the residential quarters of the colony and "These documents contain only Assyrian names no native ones. The impression of cylinder seals on the envelopes show, without exception Mesopotamian non-Anatolian motifs."

On analogy, the principle evidence for Direct Contact Trade between Mesopotamia and the Indus should be seen in the seals, sealing impressions and textual data of one culture found in another. No surprise, for, if Indus traders were in Mesopotamia, or the reverse one would expect them to seal goods shipped back by their own seals. Three points become immediately evident:

1. No Mesopotamian seals, sealings or texts have ever been found in Harappan context.
2. Only one Indus type seal impression with ten Indus signs has been found in Mesopotamia (at Umma, Scheil 1925).
3. No distinctive architectural complex of Mesopotamian characteristics has ever been excavated in the Indus. The reverse being also true.
4. On no Mesopotamian site is there a clustering of Indus objects in association with architecture, save for Tell Asmar (see below).

We are left only to consider the scattered Indus-type seals in Mesopotamia—by itself weak evidence to suggest Direct Contact Trade.

Indus seals have supported the main evidence for Direct Contact Trade between the Indus and Mesopotamia, as well as for establishing contemporaneity of both civilizations during pre and post Sargonic times. It is unfortunate that the chronology is rendered doubtful by either unstratified or uncertain context of the majority of the seals.

A re-assessment of the context of the Indus seals in Mesopotamia in no way supports their association within a trading colony context. For the most part the seals are single finds without clusterings of additional Indus type materials in association and, we might add, in an almost universally bad context.

The list below does not include the Persian Gulf types included by Gadd (1932).

Indus Type Seals

Ur:

1. Unstratified (Woolley 1928:26, Pl. XI, Fig. 2; Gadd 1932, No. 1).
2. From Bur-Sins Tomb or mixed in later filling (Woolley 1932:362-64, Pl. LXII, No. 2; Gadd 1932, No. 16).
3. From a vaulted tomb of Larsa Period (Gadd 1932, No. 6; Legrain 1951:632).

The remainder of the Ur seals published by Gadd (1932) have been seen as Persian Gulf variants (Wheeler 1968).

Tell Asmar:

1. From an Akkadian house, a cylinder seal (only six cylinder seals have been found in Harappan context) depicting elephant, rhinoceros, crocodile (Frankfort 1923:51; 1938:305).
2. Akkadian context but without further association (Frankfort 1923:52).

Kish:

1. Square steatite seal with "unicorn" and the Indus signs. Found "nine meters below the surface" (Langdon 1931:593-96).
2. Square Indus seal with unicorn and Indus inscription, "below the pavement of Samsuiluna, son of Hammurabi (Langdon 1931:593).

Umma (Tell Jokha)

1. An impressed square clay sealing with at least ten Indus signs (Scheil 1925).

The seals thus present not only doubtful chronological markers but minimal support for the presence of Indus trade in Mesopotamia. Only the Umma sealing indicates a receipt of goods received from the Indus. It is indicative, however, that such evidence as does exist, supports the presence of Indus traders in Mesopotamia rather than the reverse. Thus, if there were Direct Contact Trade it would seem to be Indus traders in Mesopotamia.

A review of the contextual association of unmistakably Indus seals in Mesopotamia does not support the clustering of such material on any given site, nor more particularly, within a specific activity or habitation area. A single exception could be Tell Asmar where the seals are reinforced by ceramics; knobbed ware, etched beads and kidney shaped inlay of bone, all of Harappan types and found in Akkadian houses at Tell Asmar. If anywhere in Mesopotamia we have evidence for Indus Direct Contact Trade it would be best supported at Tell Asmar.

Furthermore, when the material evidence for Direct Contact Trade between the Indus and Mesopotamia is compared quantitatively against the Direct Contact Trade as it existed at the Assyrian karum of Hattush and Kultepe, Egyptian-Minoan or Egyptian-Syro-Palestinian (i.e., Byblos) it becomes evident that neither a single Mesopotamian nor Indus site indicates a comparable clustering of materials in association to suggest Direct Contact Trade between these two areas.

One cannot, however, deny the existence of materials other than Indus seals in Mesopotamia which suggest

some form of relations. These objects, few in number and varied in type cannot be argued as standardized or valued trade objects (see below). Such objects may be taken as either possessions of Indus traders in Mesopotamia or having arrived through an indirect contact trade, i.e., Exchange. These materials: terracotta statues, dice, etched carnelian beads, stone vessels (see below) are not found on any single Mesopotamian site in sufficient numbers and in clustering association to support the presence of trade in these items or the presence of an Indus colony. Again, we note that uncontested Mesopotamian products simply have not been found in the Indus (see below).

The presence of single objects of Indus derivation found on Mesopotamian sites may well have been brought to Mesopotamia by hand-to-hand (site-to-site) exchange. It is unfortunate that few sites of Eastern Iran and Baluchistan between the Indus and Mesopotamia have been excavated, and those that have clearly support their role in *Central Place Trade* (see below) controlling either the given resources of an area or the transshipment of goods from the East to the West, or the reverse.

EXCHANGE (INDIRECT CONTACT TRADE)

The evidence for Exchange, an informal non-centrally administered stimulus diffusion of materials, can be supported in the distribution of materials appearing as rare occurrences both in the Indus, Mesopotamia and on sites between both areas. They are not objects or materials upon which a reciprocal trade would be structured, i.e., necessary resources or desirable luxury goods. They are single and varied objects, as animal headed pins, beads, etc. not classes of distinctive functional materials as seals. Such an Exchange, unlike Direct Contact Trade, would not be under administrative control, but the varied materials in passing from hand-to-hand (site-to-site) would appear randomly on sites between the Indus and Mesopotamia as well as on Mesopotamian and Indus sites.

One of the best explications of an exchange system in antiquity is contained in Herodotus (*The Histories*; Book IV, Chap. 33):

But the persons who have the most to say on this subject are the Delians. They declare that certain offerings, packed in wheaten straw, were brought from the country of the Hyperboreans into Scythia, and that the Scythians received them and passed them on to their neighbors upon the West, who continued to pass them on, until at last they reached the Adriatic. From hence they were

sent southward and when they came to Greece, were received first of all by the Dodoiceans. Thence they descended to the Malia Gulf, from which they were carried across into Euboea, where the people handed them on from city to city, till they came at length to Carystus Such according to their own account was the road by which the offerings reached the Delians Afterwards the Hyperboreans when they found their messengers did not return, thinking it would be a grievous thing always to be liable to lose the envoys they should send, adopted the following plan: They wrapped their offerings in the wheaten straw and bearing them to their borders, charged their neighbors to send them forward from one nation to another, which was done accordingly, and in this way the offerings reached Delos.

Objects often believed to be of Western Asian and/or Indus origin found outside either area and in the past used as evidence for Exchange include:

1. *Metal Types*

From the depth of 18.4 feet at Mohenjo-daro in DK area (MacKay 1938:539, Vol. II, Pl. C, No. 4) and from Chanhu-daro (MacKay 1943:195, Pl. LXVIII, 9) belonging to the last phase of occupation were found two spiral headed pins, while two animal headed pins from Area J, Trench III at Harappa (Vats 1940:390, Pl. CXXV, 34, 36) and one from DK area of Mohenjo-daro (MacKay 1938: Vol. II, Pl. C, 3) were recovered. Piggott (1948:26-40) has argued that these pins were imported into the Indus Valley. The presence of this generalized type at Troy II, Alaca Huyuk (Grave L), Naram Sin's palace at Brak, a mid-second millennium tomb of Mari, Hissar II, IIIc, *et al* indicated to Piggott the eastward migration of this type. Their presence in the Koban and Korca in 13th-9th century context make them at best a questionable chronological marker. Piggott's examples from Iran alone range from 4th to 2nd millennium date. We reject the evidence of spiral and animal headed pins as evidence for trade between East and West. Doubtful it is that they were even representative of an Exchange. We believe them best explained as the transmission of a generalized pin type. Among the many examples cited by Piggott no two examples are really alike. The pins from Alaca, the Caucasus, Mainland Greece, Luristan, Khurab, Kish, etc. are all similar in that animals form their head—the animals differ however as do their individual styles. We dismiss them as evidence of trade, but see in their popularity throughout late 3rd millennium Western Asia an indication of a common tradition in the manufacture of pins.

An unpublished bronze or copper knife of distinctly

Harappan type was found in Hissar IIIB (Wheeler 1947:80), while a copper axe-adze is noted from Mohenjo-daro (6 feet below the surface) and said to be paralleled at Hissar III. It has been argued that Indus metallurgy owes a great deal to that of Iran—but not, we believe, through trade in objects, but through stimulus diffusion in the development of a metallurgical technology and the production of similar functional tool types (Lamberg-Karlovsky 1967:145-62).

2. *Ceramics*

Ceramics are poor indicators for documenting the existence of trade relations but have been used to suggest cultural contacts between the Indus and Mesopotamia.

A few types of pottery have been thought to indicate contact between the Indus and Mesopotamia. The evidence is at best shaky—the selected attributes indicating typological similarities are too generalized, namely (a) perforated, (b) knobbed and (c) 'reserved slip' ware. Perforated wares appear on several Mesopotamian sites and in Iran at Hissar, Tureng Tepe, Shah Tepe, Yahya, Bampur and Shahr-i-Sokhta. Of different shapes and date this ware in no way can be marshalled to support the existence of Mesopotamian-Indus contact or relations.

Knobbed ware is rare in Mesopotamia, Iran and the Indus. Several sherds with knobs on the external surface at Tell Asmar and Khafajeh are dated to Jemdet Nasr and Early Dynastic III and have been paralleled to the knobbed ware in the Indus (Delougaz 1952:188). The carefully made knobbed vases of Mohenjo-daro contrast with the roughly made knobs on those of the Diyala. The general resemblance of the plastic decoration is far too vague to establish contacts between the two areas. Rare examples of knobbed ware in Iran: Shah Tepe (Arne 1945: Fig. 167, 168, Pl. XXVII, 6); Sialk (Ghirshman 1938: Vol. I, Pl. XXVIII, 6) and Yahya (Lamberg-Karlovsky 1970, Fig. 29, 0), differ in shapes as much as those from the Indus and Mesopotamia. This type of ware cannot be used to strengthen any argument for Indus-Mesopotamian relations. Two sherds of 'reserve slip' ware were found at 31.8 feet below datum at Mohenjo-daro. MacKay (1938:184) compared these to a common 'reserve slip' pottery from Kish and Ur. The evidence of two sherds indicating similar surface treatment simply cannot be used as evidence for any type of relationship or chronological contemporaneity.

Several unique objects have been used to indicate an interrelationship between the Indus and Mesopotamia.

Again, they are principally Indus objects found in Mesopotamian context and would not seem to be objects of commercial value for trade. These are figurines, dice and beads.

3. Figurines

Three figurines found in Mesopotamia are said to compare stylistically with ones from the Indus (Dales 1968). All three figurines come from Nippur, two were found in the 'Scribal Quarter' and one from the floor of a contemporary house (TBVZ). Although one cannot deny the stylistic affinity of these figurines with those known from Harappan context (Dales: *op cit*) the evidence from Nippur and the Indus cities does not show an intrusive character of these figurines, thus, despite few similarities in the style of representation, they could more readily be quite independent creations.

4. Dice

Dales (1968) has presented convincing evidence that one of the Indus die types (1/2, 3/6, 4/5) was actually exported or duplicated in Mesopotamia. In Mesopotamia, where dice are less common than in the Indus, the above type die has been found in the Royal Cemetery, Pit X at UR (Woolley 1955:44, 79, Fig. 7a, b), Nippur in Akkadian context (McCown 1960, Pl. 153, 11), at Tell Asmar beneath an Akkadian floor, incompletely described, and perhaps not of Indus type (Frankfort 1933:48). One cannot be certain that the die were actually imported to Mesopotamia from the Indus: stimulus diffusion of a game-type followed by independent development of die seems as likely, and is supported by the unique die type of Gawra IV (2/3, 4/5, 6/1) (Speiser 1935:82, Pl. XXXVII) which may have been copied from a southern Mesopotamian counterpart with the retention of 4 opposite 5 (the single consistent opposition on all Mesopotamian die), but varying other oppositions.

5. Beads

Distinctive shapes and decorative designs of several bead types have been regarded as further evidence of connections between the Indus Valley and Mesopotamia. Beads from Chanhu-daro with single, double or triple circular designs as well as ones with a figure of 8, afford close resemblances to those from Kish (compare MacKay 1943 Pl. LXXIX, Nos. 1-3, 8, 11, 15 with MacKay 1925 (29) Pl. X, 2, 3, p. 698). Similarly the rare segmented beads in the Indus (Wheeler 1968) have been compared to those more widely distributed in Mesopotamia between 3100 B.C.-1800 B.C. (Mallowan

1947:254, Pl. LXXXIV, 2; MacKay 1925: Pl. 60, 39, 40). The evidence of segmented beads tends to distort rather than clarify Indus-Mesopotamian interrelations. It seems unsafe to rely on a widely scattered bead type in both space and time for documenting Mesopotamian-Indus contacts.

These frustrating bits of information, despite large scale excavations in the Indus and Mesopotamia, do not provide evidence for a co-ordinated effort toward mutual contacts and/or trade. Objects such as pins, dice, statuary, etched carnelian beads, stamp and cylinder seals are not an impressive list of exchanged or traded articles. Certainly it does not seem that a single class of objects were in preferential demand in either area which resulted in objects for standardized trade. We cannot turn to a single site where there is a clustering of Indus objects in Mesopotamia, or the reverse. More often than not we have seen only one to three objects of allegedly Indus derivation in Mesopotamia, and their context does not suggest a clustering in a specific area of the excavation. Perhaps, significantly, we have noted that Indus objects are found in Mesopotamia—never the reverse. The Harappan contacts with Mesopotamia, as evidenced by the scattered evidence, suggest a casual and indirect exchange. It has been argued that this trade was in the hands of the Baluch nomads, perhaps Kulli peoples (Dales 1965). I have elsewhere argued that the Kulli people seem not to have been the exclusive middle men, i.e., merchant-venturers (Lamberg-Karlovsky 1971). Trade between the Indus and Mesopotamia is best seen through our model in Central Place Trade—evidenced at Bahrain and Tepe Yahya.

CENTRAL PLACE TRADE

Locational analysis, more specifically, Central Place Theory offers a conceptual and theoretical framework relevant to a discussion of Indus-Mesopotamian relations. Fundamental to Central Place Theory is the assumption that goods and services are produced and offered at a few necessarily central points in order to be consumed at many scattered points. These central points are Central Places, their role the dissemination of goods (transshipment), or the production of goods from a given resource which they control. We have already indicated that trade, rather than a result of urbanization may have been one of the major establishing factors in the rise of urban centers. We turn to two Central Places, both important to Mesopotamian-Indus interrelationships. One, Tepe Yahya, has an early village occupation (ca. 4500 B.C.) with direct

cultural continuity toward a later fluorescence (contemporary with Mesopotamian Late Uruk sites, ca. 3300 B.C.). The fluorescence at Yahya can be attributed to its role in East-West trade and its control of a natural resource—steatite, which was exported to the West (see below). At Bahrein a contemporary fluorescence appears to have been brought about by its role in the transshipment of goods rather than control of resources.

At Tepe Yahya in Period VA (ca. 3200–3400 B.C.) we have recovered Nal pottery, a ware long known to pre-date the Harappan Civilization. Period VA indicates a prosperous rural community which already makes use of local and imported resources: steatite, carnelian, turquoise, obsidian, alabaster, Persian Gulf shells, *et al.* In the immediately later Period IV C we have an increase in the architectural complexity and material wealth of the site—we believe brought about by its increasing trade relations with both East and West. In IV C we have recovered from what would appear to be an administrative building (previous architecture would appear to be entirely domestic in function) Proto-Elamite tablets, Susa C cylinder sealings, distinctive cylinder seals of a type indigenous to Yahya and Uruk bevelled rim bowls. Carved steatite bowls identical in shape and motif to those found in Mesopotamia (Kish, Tell Asmar, Mari, Khafajeh, Ur, Ubaid, etc.) and at Mohenjo-daro have been recovered. At Yahya, over 1500 steatite pieces represent both finished and incompletely manufactured objects—this together with the discovery of a steatite mine some 25 km. away strongly support the manufacture and export of steatite from Yahya. We might add that the pottery represents largely an indigenous type strongly paralleled at Bampur (de Cardi 1970), Shahr-i-Sokhta (Tosi 1970) and Iblis (Caldwell 1967) but only vaguely paralleling the painted Baluchistan pottery (Lamberg-Karlovsky 1970, 1971, 1972, for discussion).

The work and recovery of the Late 4th millennium Proto-Elamite settlement at Tepe Yahya has obvious and important implications for our understanding of the chronological and cultural reconstructions throughout this large area of Baluchistan, the Persian Gulf and Mesopotamia (Lamberg-Karlovsky 1971). Firstly, on chronology: we will be able through a series of radiocarbon dates to establish fixed dates to the Late Uruk, Proto-Elamite configuration in this area; Susa C, and indirectly for the Early Dynastic steatite parallels in Mesopotamia. Our dating will also establish the first understanding of the period of export of steatite from Yahya and Southeastern Iran to the West. The carved steatite bowl fragments in House V, Room 53 in DK

area and House III, Room No. 76 at Mohenjo-daro can be precisely paralleled at Yahya (MacKay 1938, Pl. CXCII; Marshall 1931, Pl. CXXXI; Lamberg-Karlovsky 1970, Fig. 21: B, D, E, F and Pl. 23, A, F). It would appear that these pieces can now be dated to the first quarter of the 3rd millennium. This together with the presence of Nal sherds in our Period V suggests that the pre-Harappan painted pottery (Nal) dates to as early as the end of the 4th millennium while the Early Harappan surely starts earlier than the reasonably supposed 2500 B.C. Certainly we cannot accept the lowering and restricting of Harappan chronology to 2300–1700 B.C. (Agrawal 1966). We would prefer to see sites as Kulli, Rana Ghundai, Mundigak, Amri, Kot Diji and the even earlier Shahr-i-Sokhta, Yahya, *et al.* of the late 4th and early 3rd millennium as directly related in a causative manner to the later consolidation of the mature Harappan. The above sites being in fact where the sociopolitical processes were established and later adopted in the consolidation of the Harappan Civilization.

The presence of a “Persian Gulf” type seal in Yahya IV B supports a beginning 3rd millennium date for the beginning of the Bahrein sequence, already indicated by the presence of Jamdet Nasr sherds in the Barbar Temple (Mortensen 1970). The evidence for Bahrein as a Central Place engaged in the transshipment of goods between the Indus and Mesopotamia is evidenced from both textual and recent archaeological materials, i.e., Indus weights in the “customs house” at Bahrein, a Persian Gulf seal at Lothal (see Bibby 1969). Our strong parallels to Bampur I–IV in Period IV C indicate an end 4th millennium date for the beginning of the important Bampur sequence and a mid 3rd millennium date for its end (based on IV B parallels with the end of the Bampur sequence). Thus substantially revising the proposed chronological framework for this site (de Cardi 1970; Lamberg-Karlovsky 1970, 1971, 1972).

Secondly, we would like to point out that our site has no evidence for the presence of the Kulli Culture. Much has been made of and suggested for the Kulli “Merchant venturers” of the 3rd millennium (Dales 1965:268–74; 1969:15ff). We find it indicative that at Tepe Yahya with obvious evidence for long range exchange patterns there is a lack of an identifiable Kulli element. Until we hear from the important work of Professor J.-M. Casal at the Kulli site of Nindowari it is best to call a moratorium on ascribing to Kulli the responsibility for “international trade”—a conception without evident support.

Thirdly, it becomes evident that with the distribution of Tepe Yahya, Bampur, Shahr-i-Sokhta, Tal-i-Iblis and Shahdad we have an expansive distribution of contemporary and ceramically related sites. We suggest that there is here a shared cultural "ecumene" identifiable as Proto-Elamite. Clearly, the nature of the settlement pattern, the degree of uniformity between the sites, their socio-political and economic configurations (Yahya's export of steatite, Shahr-i-Sokhta's export of lapis lazuli and alabaster, etc.) need individual attention before the above hypothesis becomes wholly acceptable (Lamberg-Karlovsky 1971). It appears likely that a trade mechanism was established which in recognizing the value of local resources brought the Iranian highlands into a supply-demand relationship with resource-poor Mesopotamia. Mesopotamian demand for lapis, steatite and mineral ores would have provided in part the economic base for the urban development of Shahr-i-Sokhta, Yahya and Iblis. This relationship as in a feedback mechanism would have in turn aided in bringing about the developing complexity of socio-political and economic structure of the Late Uruk Mesopotamian city-state.

Fourthly, the presence of a late 4th and early 3rd millennium proto-literate settlement in distant South-eastern Iran, evidencing an indigenous and centralized socio-political structure, some 300-400 years prior to the 'Early Harappan' suggests that the area of South-eastern Iran and Baluchistan may have played an important role in generating the processes which resulted in the later Harappan Civilization. Thus, we believe that at Yahya during Late Uruk and Jemdet Nasr times the natural resources which it possessed and traded both East and West contributed to its urban and concomitant socio-political development, while as in a systems feedback, a similar development took place in the resource-poor demand center of Mesopotamia. Through a similar systems mechanism we see the early development of the Harappan Culture, beginning as early as 3000 B.C. Under the stimulus of desired resources and reciprocal trade throughout Baluchistan we can see an increasing nucleation of sites (Kulli, Amri, Kot Dijli, Mundigak, Shah-i-Tump, etc.) which find a culmination in the mature Harappan Civilization.

Fifthly, the role of Elam and the Elamites in Indus-Mesopotamian relations has been too long overlooked. In the 3rd millennium, situated between the Indus and Mesopotamia, was the poorly known but important Elamite Civilization. Clearly, any overland routes would have had to pass through their territory, which we now know extended eastward at least to

Tepe Yahya. The relations of Elam and Mesopotamia have been well summarized by Hinz (1963):

... the historian can recognize the leitmotiv of relations between Elam and Mesopotamia, one of hereditary enmity, mitigated at the same time by equally persistent economic and cultural exchanges, for Mesopotamia needed the products of the Elamite highlands, timber, metallic ore (lead, copper, tin and silver), stone (alabaster, diorite, and obsidian), semi-precious stones and also horses. The countless campaigns of the Sumerians and Akkadians against Elam were due to the need to control these important materials. At the same time they followed the political aim of warding off and keeping in check the Elamites, who were always ready to plunder the lowlands.

It is entirely possible that Direct Contact Trade between the Indus and Mesopotamia was prevented by the Elamites. It is equally possible that the development of sea trade was brought about in Mesopotamia through a necessity to bypass overland routes through hostile Elamite territory. Thus, the absence of port sites of 3rd millennium date along the Iranian shores of the Persian Gulf may have also been dictated by Elamite hostility toward their establishment.

Lastly, the presence of a proto-literate site at Tepe Yahya, some 600-800 miles from the Indus Valley and 200-400 years prior to the formation of the Harappan Culture has clear implications in generating the processes which led toward not only the development of later Indus-Elamite-Mesopotamian relations, but for the very formation of the Harappan Civilization! Thus the explosive evolution traditionally argued for the Harappan Culture (Wheeler 1968) can be seen as misleading. At such sites as Yahya, Shahr-i-Sokhta, Mundigak, Amri, *et al* one can see the embryonic urban forms of social organization from which the later Harappan Culture was to evolve. Wheeler (1968) has pointed out that the "idea of civilization" crossed from West (Mesopotamia) to East (the Indus). One might well ask why civilization did not occur between. We believe this a false question; for it is evident today from such a wide distribution of proto-urban sites in eastern Iran and Baluchistan, of the late 4th and early 3rd millennium, that there was an established dialectic between these resource rich areas with resource-poor Mesopotamia on the one hand and the Indus on the other which brought about a mutually dependent parallel and contemporary process toward urbanization. The absence of a political/cultural consolidation in the area of the eastern Iranian highlands and Baluchistan may be due to the absence of a unified environment, as the essentially similar riverine environments which

saw the consolidation of Mesopotamian and Indus Civilizations.

In conclusion we note that the same causal factors that create a civilization often serve to identify it. Anthropologists have used the word "intensify" to signify the heightening of cultural activity which produces this complexity (Fairervis 1960:14). We have argued here that one of the important "intensifiers" motivating the parallel but essentially distinctive rise toward urban complexes in Mesopotamia and the Iranian highlands, and the later Harappan Culture was trade. As a working hypothesis it has gathered considerable support with the new excavations undertaken in Southeastern Iran, Sistan, Baluchistan and Turkmenia.

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